

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-143. (Cancelled)

144. (Currently amended) An isolated antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody.

145.-155. (Cancelled)

156. (Currently amended) An isolated antibody or antigen binding portion thereof according to claim 144, wherein the antibody is a monoclonal antibody or an antigen binding portion derived from a monoclonal antibody.

157. (Currently amended) An isolated antibody or antigen binding portion thereof according to claim 144, wherein the antibody or antigen binding portion thereof is internalized with the prostate specific membrane antigen.

158. (Currently amended) An isolated antibody or antigen binding portion thereof according to claim 144, wherein the antigen binding portion is selected from the group consisting of a Fab fragment, a F(ab')₂ fragment, and a Fv fragment.

159. (Previously presented) An antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody wherein said antibody or antigen binding portion thereof is bound to a cytotoxic drug.

160. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the cytotoxic drug is selected from the group consisting of a therapeutic drug, a compound emitting radiation, molecules of plant, fungal, or bacterial origin, biological proteins, and mixtures thereof.

161. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the cytotoxic drug is a compound emitting radiation.

162. (Previously presented) An antibody or antigen binding portion thereof according to claim 161, wherein the compound emitting radiation is an alpha-emitter.

163. (Previously presented) An antibody or antigen binding portion thereof according to claim 162, wherein the alpha-emitter is selected from the group consisting of ^{212}Bi , ^{213}Bi , and ^{211}At .

164. (Previously presented) An antibody or antigen binding portion thereof according to claim 161, wherein the compound emitting radiation is a beta-emitter.

165. (Previously presented) An antibody or antigen binding portion thereof according to claim 164, wherein the beta-emitter is ^{186}Re .

166. (Previously presented) An antibody or antigen binding portion thereof according to claim 164, wherein the beta-emitter is ^{90}Y .

167. (Previously presented) An antibody or antigen binding portion thereof according to claim 161, wherein the compound emitting radiation is a gamma-emitter.

168. (Previously presented) An antibody or antigen binding portion thereof according to claim 167, wherein the gamma-emitter is ^{131}I .

169. (Cancelled)

170. (Previously presented) An antibody or antigen binding portion thereof according to claim 160, wherein the cytotoxic drug is a molecule of plant origin.

171. (Previously presented) An antibody or antigen binding portion thereof according to claim 160, wherein the cytotoxic drug is a biological protein.

172. (Previously presented) An antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody, wherein the antibody or antigen binding portion thereof is bound by a label.

173. (Previously presented) An antibody or antigen binding portion thereof according to claim 172, wherein the label is selected from the group consisting of a fluorescent label, a biologically-active enzyme label, a radiolabel, a nuclear magnetic resonance active label, a luminescent label, and a chromophore label.

174. (Previously presented) An antibody or antigen binding portion thereof according to claim 173, wherein the radiolabel is selected from the group consisting of ^{32}P , ^{125}I , ^3H , ^{14}C , and ^{188}Rh .

175. (Previously presented) An antibody or antigen binding portion thereof according to claim 173, wherein the label is the radiolabel ^{131}I .

176. (Previously presented) An antibody or antigen binding portion thereof according to claim 173, wherein the label is the radiolabel ^{99}mTc .

177. (Previously presented) An antibody or antigen binding portion thereof according to claim 173, wherein the label is the radiolabel ^{111}In .

178. (Currently amended) An isolated cell which produces ~~the antibody of claim 144~~ an antibody which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody.

179. (Previously presented) The cell of claim 178, which is derived from a lymphocytic cell line.

180. (Currently amended) A composition comprising:
an antibody or antigen binding portion thereof ~~according to claim 144~~ which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody; and
a pharmaceutically acceptable carrier, excipient, or stabilizer.

181. (Previously presented) A kit for detecting cancer comprising:
an antibody or antigen binding portion thereof according to claim 172 and means to detect the label.

182. (Previously presented) A kit according to claim 181, wherein the label is selected from the group consisting of a fluorescent label, a biologically-active enzyme label, a radiolabel, a nuclear magnetic resonance active label, a luminescent label, and a chromophore label.

183. (Previously presented) A kit according to claim 181, wherein the antibody or antigen binding portion thereof is in a composition further comprising a pharmaceutically acceptable carrier, excipient, or stabilizer.

184. (Previously presented) An antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody, wherein the antibody or antigen binding portion thereof is coupled to a cytotoxic drug of bacterial origin.

185. (Previously presented) An antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a monoclonal antibody selected from the group consisting of an E99, a J415, a J533 and a J591 monoclonal antibody, wherein the antibody or antigen binding portion thereof is coupled to a radioisotope.

186. (Currently amended) An isolated antibody or antigen binding portion thereof according to claim 144, wherein the antibody or antigen binding portion thereof competes for binding with the J591 monoclonal antibody.

187. (Currently amended) An isolated antibody or antigen binding portion thereof according to claim 144, wherein the antibody or antigen binding portion thereof competes for binding with the J415 monoclonal antibody.

188. (Previously presented) An antibody or antigen binding portion thereof according to

claim 159, wherein the antibody is a monoclonal antibody or an antigen binding portion derived from a monoclonal antibody.

189. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the antibody or antigen binding portion thereof is internalized with PSMA.

190. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the antigen binding portion is selected from the group consisting of Fab fragment, a F(ab')₂ fragment, and a Fv.

191. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the cytotoxic drug is a toxin.

192. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the antibody or antigen binding portion thereof competes for binding with the J591 monoclonal antibody.

193. (Previously presented) An antibody or antigen binding portion thereof according to claim 159, wherein the antibody or antigen binding portion thereof competes for binding with the J415 monoclonal antibody.

194. (Previously presented) An antibody or antigen binding portion thereof according to claim 172, wherein the antibody or antigen binding portion thereof competes for binding with the J591 monoclonal antibody.

195. (Previously presented) An antibody or antigen binding portion thereof according to claim 172, wherein the antibody or antigen binding portion thereof competes for binding with the J415 monoclonal antibody.

196. (Previously presented) An antibody or antigen binding portion thereof according to claim 184, wherein the antibody is a monoclonal antibody or an antigen binding portion derived from a monoclonal antibody.

197. (Previously presented) An antibody or antigen binding portion thereof according to claim 184, wherein the antibody or antigen binding portion thereof is internalized with the prostate specific membrane antigen.

198. (Previously presented) An antibody or antigen binding portion thereof according to claim 184, wherein the antigen binding portion is selected from the group consisting of a Fab fragment, a F(ab')₂ fragment, and a Fv fragment.

199. (Previously presented) A composition comprising:
an antibody or antigen binding portion thereof according to claim 184; and
a pharmaceutically acceptable carrier, excipient, or stabilizer.

200. (Previously presented) An antibody or antigen binding portion thereof according to claim 184, wherein the antibody or antigen binding portion thereof competes for binding with the J591 monoclonal antibody.

201. (Previously presented) An antibody or antigen binding portion thereof according to claim 184, wherein the antibody or antigen binding portion thereof competes for binding with the J415 monoclonal antibody.

202. (Previously presented) An antibody or antigen binding portion thereof according to claim 185, wherein the antibody or antigen binding portion thereof competes for binding with the J591 monoclonal antibody.

203. (Previously presented) An antibody or antigen binding portion thereof according to claim 185, wherein the antibody or antigen binding portion thereof competes for binding with the J415 monoclonal antibody.

204. (Previously presented) A kit according to claim 181, wherein the cancer is selected from the group consisting of renal cancer, urothelial cancer, colon cancer, rectal cancer, lung cancer, breast cancer, metastatic adenocarcinoma to the liver, metastatic cancer to the bone marrow, and metastatic cancer to the lymph nodes.

205. (Previously presented) A kit according to claim 181, wherein the cancer is prostate cancer.

206. (Previously presented) A kit according to claim 181, wherein the antibody or antigen binding portion thereof competes for binding with the J591 monoclonal antibody.

207. (Previously presented) A kit according to claim 181, wherein the antibody or antigen binding portion thereof competes for binding with the J415 monoclonal antibody.

208. (Previously presented) A composition comprising:
an antibody or antigen binding portion thereof according to claim 159; and
a pharmaceutically acceptable carrier, excipient, or stabilizer.

209. (Previously presented) An antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a J591 monoclonal antibody, wherein the antibody or antigen binding portion thereof is coupled to a cytotoxic drug of bacterial origin.

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210. (Previously presented) An antibody or antigen binding portion thereof which competes for binding to prostate specific membrane antigen (PSMA) with a J415 monoclonal antibody, wherein the antibody or antigen binding portion thereof is coupled to a cytotoxic drug of bacterial origin.

211.-231. (Cancel)